

Maintenance Checksheets

DC Controls. Unit 6, Tallaght Business Centre, Tallaght Dublin 24. 01-4416651 www.dccontrols.ie

Project: Holiday Inn Express

Date: 11/03/2024

Contact: Dave 0874085003

Engineers: Ben Cooke & Dean Hayden



Project: Holiday Inn Express Date: 11/03/2024

Controller Type/Num: Trend IQ4E Base Controller							
Point Type	Point Number	Description	Units				
ΑI	1	Outside Air Temperature	°C				
ΑI	2	AHU-01 Supply Duct Temperature	°C				
		AHU-01 Supply Air Setpoint	°C				
ΑI	3	AHU-02 Pre-Electric Heater Temperature	°C				
ΑI	4	AHU-02 Supply Duct Temperature	°C				
		AHU-02 Supply Air Setpoint	°C				
ΑI	5	AHU-02 Extract Air Temperature	°C				
ΑI	6	HWS Calorifier Tank Temperature	°C				
ΑI	7	HWS Calorifier Tank Return Temperature	°C				
		DHW Flow Setpoint					
DI	8	DIM4 No.1	On/Off				
DI	9	DIM4 No.2	On/Off				
UI	10	Spare	-				
AVO	11	IO-RMA#1	0-10V				
AV0	12	IO-RM2#1	0-10V				
AVO	13	AHU-01 Electric Heater Battery 3 Modulating Ctrl	0-10V				
AVO	14	IO-RMA#2	0-10V				
AVO	15	AHU-02 Electric Heater Battery Modulating Ctrl	0-10V				
AVO	16	IO-RMA#3	0-10V				

Sta	tus	
Operating Correctly	Faulty	
Yes		
-		
Yes		

		Engineers: Ben Cooke & Dea	n Hayden
Make	Model	Notes	Engineer
Make	Model		
Trend	TB/TO		BC/DH
Trend	TB/TI-S		BC/DH
			BC/DH
Trend	TB/TI-S		BC/DH
Trend	TB/TI-S		BC/DH
			BC/DH
Trend	TB/TI-S		BC/DH
Trend	TB/TI-S		BC/DH
Trend	TB/TI-S		BC/DH
			BC/DH
Sontay	IO-DIM4		BC/DH
Sontay	IO-DIM4		BC/DH
			BC/DH
Sontay	IO-RMA		BC/DH
Sontay	IO-RM2		BC/DH
			BC/DH
Sontay	IO-RMA		BC/DH
			BC/DH
Sontay	IO-RMA		BC/DH



Project: Holiday Inn Express Date: 11/03/2024

Con	Controller Type/Num: Trend 16DI			Status		Make	Model	Notes	Engineer
Point Type	Point Number	Description	Units	Operating Correctly	Faulty	Make	Model		
DI	1	Fire Alarm	On/Off	Yes					BC/DH
DI	2	Gas Dectection Alarm	On/Off	Yes					BC/DH
DI	3	AHU-01 Supply Fan Airflow Switch	On/Off	Yes					BC/DH
DI	4	AHU-01 Electric Heater Battery High Limit	On/Off	Yes					BC/DH
DI	5	AHU-02 Supply Fan Airflow Switch	On/Off	Yes					BC/DH
DI	6	AHU-02 Electric Heater High Limit	On/Off	Yes					BC/DH
DI	7	AHU-02 Extract Fan Airflow Switch	On/Off	Yes					BC/DH
DI	8	EF-05 Kitchen Extract CT Switch	On/Off	Yes					BC/DH
DI	9	EF-05 Kitchen Extract CT Switch	On/Off	Yes					BC/DH
DI	10	Mains Water Meter Pulse signal	On/Off	Yes					BC/DH
DI	11	Main Gas Meter Pulse signal	On/Off	Yes					BC/DH
DI	12	DHW Cold Feed to Hotel Water Meter signal	On/Off	Yes					BC/DH
DI	13	CWS Consumption Water Meter signal	On/Off	Yes					BC/DH
DI	14	BCWS to Kitchens Water Meter signal	On/Off	Yes					BC/DH
DI	15	DHW to Kitchens Water Meter signal	On/Off	Yes					BC/DH
DI	16	DHW Return to Kitchens Water Meter signal	On/Off	Yes					BC/DH



		 	C Controls	. Unit 6	, Tal	laght Br	<u>usin</u>	ess Centre, Talla	ght Dublin 24	. 01-4416651 www.dccontrols.ie	
Pro	ject:	Holiday Inn Express								Date: 13	1/03/2024
Coı	ntact:	Dave 0874085003								Engineers: Ben Cooke & Dea	n Hayden
Cor	trolle	r Type/Num: RMA#1			Stat	tus		Make	Model	Notes	Engineer
Point Type	Point Number	Description	Units	Operating Correctly		Faulty					
DI	1	AHU-01 Supply Fan Enable & Speed signal	On/Off	Ye	2S			Sontay	IO-RMA		BC/DH
Cor	trolle	r Type/Num: RMA#2	_		Stat	tus		Make	Model	Notes	Engineer
Point Type	Point Number	Description	Units	Operating Correctly		Faulty					
DI	1	AHU-02 Supply Fan Enable & Speed signal	On/Off	Ye				Sontay	IO-RMA		BC/DH
Cor	trolle	r Type/Num: RMA#3			Stat	tus		Make	Model	Notes	Engineer
Point Type	Point Number	Description	Units	Operating Correctly		Faulty					
DI	1	AHU-02 Extract Fan Enable & Speed signal	On/Off	Ye	<u> S</u>			Sontay	IO-RMA		BC/DH
Cor	trolle	r Type/Num: RM2#1			Stat	tus		Make	Model	Notes	Engineer
Point Type	Point Number	Description	Units	Operating Correctly		Faulty					
DI	1	AHU-01 Electric Heater Batteries 1 Enable	On/Off	Ye	şS			Sontay	IO-RM2		BC/DH

Sontay

IO-RM2

On/Off

Yes

2 AHU-01 Electric Heater Batteries 2 Enable

BC/DH



Project: Holiday Inn Express

Date: 11/03/2024

Contact: Dave 0874085003

Engineers: Ben Cooke & Dean Hayden

Contact. Dave 06/4063003									
Cor	ntrolle	er Type/Num: DIM4#1		Sta	itus	Make	Model	Notes	Engineer
Point Type	Point Number	Description	Units	Operating Correctly	Faulty				
DI	1	AHU-01 Panel Filter D.P Switch	On/Off	Yes		Kromschroder	CPS 330		BC/DH
DI	2	AHU-01 Bag Filter D.P Switch	On/Off	Yes		Kromschroder	CPS 330		BC/DH
DI	3	AHU-02 Supply Panel Filter D.P Switch	On/Off	Yes		Kromschroder	CPS 330		BC/DH
DI	4	AHU-02 Supply Bag Filter D.P Switch	On/Off	Yes		Kromschroder	CPS 330		BC/DH
Cor	ntrolle	er Type/Num: DIM4#2		Sta	itus	Make	Model	Notes	Engineer
Point Type	Point Number	Description	Units	Operating Correctly	Faulty				
Point Type 🙃	Number	Description Cold Water Booster Fault	∪nits On/Off		Faulty				BC/DH
	Number 1			Correctly	Faulty				BC/DH BC/DH
DI	Number 1	Cold Water Booster Fault	On/Off	Correctly Yes	Faulty				



Project: Holiday Inn Express Date: 11/03/2024

Description	Units	Operating	Faulty	Notes	Engineer
AHU 1	On/Off	Correctly Yes		On	BC/DH
AHU 1 Bag Filter	On/Off	Yes		Off	BC/DH
AHU 1 Electric Heater H/L	On/Off	Yes		On	BC/DH
AHU 1 Panel Filter	On/Off	Yes		Off	BC/DH
AHU 1 Speed	Hz	Yes		50Hz	BC/DH
AHU 1 Supply Air Setpoint	°C	Yes		18.0°C	BC/DH
AHU 1 Supply Temperature	°C	Yes		18.3°C	BC/DH
AHU 1 Supply Fan Airflow	On/Off	Yes		On	BC/DH
AHU 2	On/Off	Yes		On	BC/DH
AHU 2 Bag Filter	On/Off	Yes		Off	BC/DH
AHU 2 Electric Heater H/L	On/Off	Yes		On	BC/DH
AHU 2 Extract Fan Airflow	On/Off	Yes		On	BC/DH
AHU 2 Extract Fan Speed	Hz	Yes		50Hz	BC/DH
AHU 2 Extract Temperature	°C	Yes		19.13°C	BC/DH
AHU 2 Heating Output	%	Yes		56%	BC/DH
AHU 2 Panel Filter	On/Off	Yes		Off	BC/DH
AHU 2 Pre-Heater Temperature	°C	Yes		12.6°C	BC/DH
AHU 2 Speed	Hz	Yes		50Hz	BC/DH
AHU 2 Supply Air Setpoint	°C	Yes		18.0°C	BC/DH
AHU 2 Supply Fan Airflow	On/Off	Yes		On	BC/DH
AHU 2 Supply Temperature	°C	Yes		18.3°C	BC/DH
AHU 2 Thermal Wheel	%	Yes		100.00%	BC/DH
AHU 2 Speed Control	%	Yes		100.00%	BC/DH
AHU 1 Heating Battery 1&2 Enable	%	Yes		0.00%	BC/DH
AHU 1 Heating Battery 3	%	Yes		88.90%	BC/DH
AHU 1 Supply Fan Enable & Speed	%	Yes		100.00%	BC/DH
AHU 1 Supply Fan Airflow Fail	On/Off	Yes		Off	BC/DH
AHU 2 Extract Fan Enable & Speed	%	Yes		100.00%	BC/DH
AHU 2 Extract Fan Airflow Fail	On/Off	Yes		Off	BC/DH
AHU 2 Heating Element	%	Yes		56.00%	BC/DH
AHU 2 Supply Fan Enable & Speed	%	Yes		100%	BC/DH
AHU 2 Supply Fan Airflow Fail	On/Off	Yes		Off	BC/DH
BCWS To Kitchen Meter This Year	Ltrs	Yes		6910.7 Ltrs	BC/DH
BCWS To Kitchen Meter This Month	Ltrs	Yes		847.9 Ltrs	BC/DH
BCWS To Kitchen Meter Daily	Ltrs	Yes		23 Ltrs	BC/DH
BCWS To Kitchen Meter Hourly	Ltrs	Yes		10.4 Ltrs	BC/DH
BCWS To Kitchen Water Meter	On/Off	Yes		Off	BC/DH
Cold Water Booster Fault	On/Off	Yes		On	BC/DH
CWS Consumption Daily	m3	Yes		6.7 m3	BC/DH
CWS Consumption Hourly	m3	Yes		1.92 m3	BC/DH
CWS Consumption This Year	m3	Yes		1591.22 m3	BC/DH
CWS Consumption Monthly	m3	Yes		240.74 m3	BC/DH
CWS Consumption Water Meter	On/Off	Yes		Off	BC/DH
CWS Tank 1 High Level	On/Off	Yes		Off	BC/DH
CWS Tank 1 Low Level	On/Off	Yes		Off	BC/DH
CWS Tank 2 High Level	On/Off	Yes		Off	BC/DH
CWS Tank 2 Low Level	On/Off	Yes		Off	BC/DH



Project: Holiday Inn Express Date: 11/03/2024

		Operating			
Description	Units	Correctly	Faulty	Notes	Engineer
DHW Cold To Hotel Meter	On/Off	Yes		Off	BC/DH
DHW Cold To Hotel Daily	Ltrs	Yes		4 Ltrs	BC/DH
DHW Cold To Hotel Monthly	Ltrs	Yes		140.71 Ltrs	BC/DH
DHW Cold To Hotel Yearly	Ltrs	Yes		738.3 Ltrs	BC/DH
DHW Flow Setpoint	°C	Yes		59.0°C	BC/DH
DHW Hot Return	On/Off	Yes		On	BC/DH
DHW Hot Return Fail	On/Off	Yes		Off	BC/DH
DHW Return To Kitchen Meter	On/Off	Yes		Off	BC/DH
DHW Return To Kitchen Meter Hourly	Ltrs	Yes		0 Ltrs	BC/DH
DHW Return To Kitchen Meter Monthly	Ltrs	Yes		100 Ltrs	BC/DH
DHW Return To Kitchen Meter Yearly	Ltrs	Yes		600 Ltrs	BC/DH
DHW Return To Kitchen Meter Daily	Ltrs	Yes		0 Ltrs	BC/DH
DHW To Kitchen Meter Daily	Ltrs	Yes		0 Ltrs	BC/DH
DHW To Kitchen Meter Hourly	Ltrs	Yes		0 Ltrs	BC/DH
DHW To Kitchen Meter Yearly	Ltrs	Yes		10100 Ltrs	BC/DH
DHW To Kitchen Meter Monthly	Ltrs	Yes		100 Ltrs	BC/DH
DHW To Kitchen Meter	On/Off	Yes		Off	BC/DH
DIM4 Multiplexer No.1	·	Yes		8.46	BC/DH
DIM4 Multiplexer No.2		Yes		120.58	BC/DH
EF 01 Enable	On/Off	Yes		On	BC/DH
EF 01 GF Area	On/Off	Yes		On	BC/DH
EF 01 Kitchen Extract A/F	On/Off	Yes		On	BC/DH
EF 02 Enable	On/Off	Yes		On	BC/DH
EF 02 GF Toilet Extract	On/Off	Yes		On	BC/DH
EF 02 Kitchen Extract A/F	On/Off	Yes		On	BC/DH
EF 03 Bedrooms Enable	On/Off	Yes		On	BC/DH
EF 03 Enable Speed	%	Yes		75.00%	BC/DH
EF 03 Supply Fan Airflow Fail	On/Off	Yes		Off	BC/DH
EF 03 Twin Fan Airflow	On/Off	Yes		Off	BC/DH
EF 03 Twin Fan Speed Signal	%	Yes		75.00%	BC/DH
EF 04 Bedrooms Enable	On/Off	Yes		On	BC/DH
EF 04 Enable Speed	%	Yes		63.00%	BC/DH
EF 04 Supply Fan Airflow Fail	On/Off	Yes		On	BC/DH
EF 04 Twin Fan Airflow	On/Off	Yes		Off	BC/DH
EF 04 Twin Fan Speed Signal	%	Yes		63.00%	BC/DH
EF 05 Enable	On/Off	Yes		On On	BC/DH
EF 05 Supply Fan Airflow Fail	On/Off	Yes		On	BC/DH
EF 05 Twin Fan Airflow	On/Off	Yes		Off	BC/DH
EF 06 Enable	On/Off	Yes		On	BC/DH
EF 06 Linen Room Fail	On/Off	Yes		On	BC/DH
EF 06 Twin Fan Airflow	On/Off	Yes	1	Off	BC/DH
EF 07 Enable	On/Off	Yes	1	On	BC/DH
EF 07 Enable EF 07 Extract Plant Room Fail	On/Off	Yes	1	Off	BC/DH BC/DH
EF 07 Extract Plant Room Fall EF 07 Twin Fan Airflow	On/Off	Yes		On	BC/DH BC/DH
EF 01 & 02 Enable Signal	%				
ELE Meter 1 kWh	% kWh	Yes		100.00% 1874082 Kwh	BC/DH
ELE Meter 1 kWh		Yes			BC/DH
LLL IVICIOI Z KVVII	kWh	Yes		393216 kwh	BC/DH



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Description	Units	Operating	Faulty		Engineer
		Correctly	radity	Notes	
ELE Meter 3 kWh	kWh	Yes		95948 kwh	BC/DH
ELE Meter 4 kWh	kWh	Yes		380928 kwh	BC/DH
ELE Meter 5 kWh	kWh	Yes		0 kwh	BC/DH
ELE Meter 6 kWh	kWh	Yes		226304 kwh	BC/DH
ELE Meter 7 kWh	kWh	Yes		116224 kwh	BC/DH
ELE Meter 8 kWh	kWh	Yes		243712 kwh	BC/DH
ELE Meter 9 kWh	kWh	Yes		296550 kwh	BC/DH
ELE Meter 10 kWh	kWh	Yes		100864 Kwh	BC/DH
ELE Meter 11 kWh	kWh	Yes		0 kwh	BC/DH
ELE Meter 12 kWh	kWh	Yes		0 kwh	BC/DH
ELE Meter 13 kWh	kWh	Yes		12326 kwh	BC/DH
ELE Meter 14 kWh	kWh	Yes		521830 kwh	BC/DH
ELE Meter 15 kWh	kWh	Yes		115712 kwh	BC/DH
ELE Meter 16 kWh	kWh	Yes		126464 kwh	BC/DH
ELE Meter 17 kWh	kWh	Yes		411110 kwh	BC/DH
ELE Meter 18 kWh	kWh	Yes		109568 kwh	BC/DH
ELE Meter 19 kWh	kWh	Yes		118272 kwh	BC/DH
ELE Meter 20 kWh	kWh	Yes		136192 kwh	BC/DH
ELE Meter 21 kWh	kWh	No		0 kwh	BC/DH
ELE Meter 22 kWh	kWh	No		0 kwh	BC/DH
ELE Meter 23 kWh	kWh	No		11366.4 kwh	BC/DH
ELE Meter 24 kWh	kWh	No		493158.4 kwh	BC/DH
ELE Meter 25 kWh	kWh	No		109568 kwh	BC/DH
ELE Meter 26 kWh	kWh	No		118784 kwh	BC/DH
ELE Meter 27 kWh	kWh	No		104448 kwh	BC/DH
ELE Meter 28 kWh	kWh	No		103424 kwh	BC/DH
ELE Meter 29 kWh	kWh	No		110080 kwh	BC/DH
ELE Meter 30 kWh	kWh	No		128512 kwh	BC/DH
EF 01 Fail	On/Off	Yes		Off	BC/DH
EF 02 Fail	On/Off	Yes		Off	BC/DH
Fire Alarm	On/Off	Yes		On	BC/DH
Gas Detection	On/Off	Yes		Off	BC/DH
Gas Fired Heater 1	On/Off	Yes		Off	BC/DH
Gas Fired Heater 2	On/Off	Yes		On	BC/DH
Gas Fired Heater 3	On/Off	Yes		On	BC/DH
Gas Fired Heater 4	On/Off	Yes		On	BC/DH
Gas Fired Heater 5	On/Off	Yes		On	BC/DH
Gas Fire Water 1 Fault	On/Off	Yes		Off	BC/DH
Gas Fire Water 2 Fault	On/Off	Yes		Off	BC/DH
Gas Fire Water 3 Fault	On/Off	Yes		Off	BC/DH
Gas Fire Water 4 Fault	On/Off	Yes		Off	BC/DH
Gas Fire Water 5 Fault	On/Off	Yes		Off	BC/DH
Gas Heater Rotate	On/Off	Yes	\vdash	Off	BC/DH
Gas Meter Usage Daily	m3	Yes	\vdash	47.5 m3	BC/DH
Gas Meter Usage Monthly	m3	Yes	\vdash	1362 m3	BC/DH
Gas Meter Usage Hourly	m3	Yes		8.8 m3	BC/DH
Gas Meter Usage Yearly	m3	Yes		8876 m3	BC/DH
Sub-Micron Sugar really	1113	163		00701113	וועלאט



Project: Holiday Inn Express Date: 11/03/2024

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Description	Units	Operating Correctly	Faulty	Notes	Engineer
Hot Return Spare				40	BC/DH
Hot Water Return CT	On/Off	Yes		On	BC/DH
HWS Calorifier Return Temperature	°C	Yes		58.7°C	BC/DH
HWS Calorifier Temperature	°C	Yes		60.3°C	BC/DH
Kitchen DHW Daily	Ltrs	Yes		0 Ltrs	BC/DH
Kitchen DHW Hourly	Ltrs	Yes		0 Ltrs	BC/DH
Kitchen DHW Monthly	Ltrs	Yes		100 Ltrs	BC/DH
Kitchen DHW Yearly	Ltrs	Yes		100 Ltrs	BC/DH
Main Incomer Daily	kWh	Yes		0 kW	BC/DH
Main Incomer Energy	kW	Yes		0 kW	BC/DH
Mains Water Meter Daily Usage	m3	Yes		0 m3	BC/DH
Mains Water Meter Hourly Usage	m3/h	Yes		0 m3/h	BC/DH
Mains Water Meter Hourly Usage	Ltrs/h	Yes		0.92 Ltrs/h	BC/DH
Mains Water Meter Monthly Usage	m3	Yes		0 m3	BC/DH
Mains Water Meter Yearly Usage	m3	Yes		0 m3	BC/DH
Mains Water Meter Usage	m3hh	Yes		0 m3	BC/DH
Min.Number Of Water Heaters		Yes		3	BC/DH
Number Of Water Heaters Required	On/Off	Yes		4	BC/DH
Outside Air Temperature	°C	Yes		9°C	BC/DH
Remote Alarm	On/Off	Yes		On	BC/DH
Supply Fan 01 Air Flow	On/Off	Yes		On	BC/DH
Supply Fan 01 Enable	On/Off	Yes		On	BC/DH
Supply Fan 01 Plantroom Fail (Spare ??)	On/Off	Yes		Off	BC/DH
Sump Fault	On/Off	Yes		Off	BC/DH
Sump Pump Fault	On/Off	Yes		Off	BC/DH
Water Conditioning No.1 Fault	On/Off	Yes		On	BC/DH
Water Conditioning No.2 Fault	On/Off	Yes		On	BC/DH
Water Heater Fault 1	On/Off	Yes		Off	BC/DH
Water Heater Fault 2	On/Off	Yes		Off	BC/DH
Water Heater Fault 3	On/Off	Yes		Off	BC/DH
Water Heater Fault 4	On/Off	Yes		Off	BC/DH
Water Heater Fault 5	On/Off	Yes		Off	BC/DH
Water Heater Lag 1	On/Off	Yes		On	BC/DH
Water Heater Lag 2	On/Off	Yes		Off	BC/DH
Water Heater Lag 3	On/Off	Yes		Off	BC/DH
Water Heater Lag 4	On/Off	Yes		Off	BC/DH



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Contact: Dave 0874085003 Engineers: Ben Cooke & Dean Hayden

Timeclocks Hours Mon-Fri 08:00-18:00, Sat & Sun Off AHU 1 AHU 2 Mon-Fri 08:00-18:00,Sat & Sun Off **Domestic Hot Water** On 24/7 EF 01 Ground Floor Area Mon-Fri & Sun 06:00-24:00, Sat 05:00-24:00 EF 02 Toilet Extract Mon-Sun 05:00-22:00 EF 03 Bedrooms Mon-Sun 08:00-19:00 EF 04 Bedrooms Mon-Sun 08:00-19:00 EF 05 Kitchen Extract Mon-Sun 05:00-23:00 EF 06 Basement Area Mon-Sun 05:00-24:00 Plantroom Fans(SF01 + EF07) On 24/7



Maintenance Recommendations & Costs

DC Controls. Unit 6, Tallaght Business Centre, Tallaght Dublin 24. 01-4416651 www.dccontrols.ie

Project: Holiday Inn Express	Recommendations	Date: 11/03/2024
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Contact:	Dave 0874085003 Engineers: Ben Cooke & Dean Hayden
No.	Description
1	HWS return pump - Cover is missing off of the pump and live cables are exposed. Type; Grundfoss 32-120 F B (noted from the previous visit) - By others.
2	Electricity meters - Electricity 11 to 20 is reading the same as the electricity meters 21 to 30. Further investigation required. Trend laptop needed to access program See quote.
3	Switches - Found all gas fired water heaters and extract fans are in hand on the panel door and are not working in auto. Further investigation required. See quote.
4	Mains water meters - Meter is reading 0 for hourly, monthly and yearly. Further investigation required - See quote.
5	ELE meters 5, 11, 12, 21, 22 have readings of 0 kwh. 03/24 Locations of these meters required. See quote.
6	New boilers and calorifires installed recently. (Not tied into the BMS, possibly be tied in the future) 03/24 found that there is now only 4 water heaters. Water heater 1 is the master with 2-4 being slaves. Water heater 1 has the enable tied into it and controls which water heaters to bring on. Faults from the water heaters are 230v and a relay has been added to each to make the fault signal volt-free. Note.
7	Plantroom supply fan needs to be on 24/7 as it has control over the gas supply. If turned off the gas supply knocks off - Note.
8	Calorifires only have main header flow and return sensors installed - Note
9	OAT is reading 30'C, sensor is facing East. Extract fan close enough to the sensor. Recommend moving to North facing wall for accurate readings - See quote.
10	Cold water booster set - Preassure stat not mounted onto pipework - By others.
11	BMS IP - 10.1.0.11 - Note.
12	BMS web login - Username: InTouch Engineer/Password: 4232 - Note.